

Fruit Raising in Washington.

WASHINGTON FRUIT.

FINER FLAVORED THAN CALIFORNIA FRUIT.

Apples, Peaches, Prunes, Plums, Apricots,
Nectarines, Cherries, Strawberries,
Raspberries, Blackberries, Goose-
berries and Currants

GIVE HEAVY YIELDS OF PERFECT FRUIT.

The Markets of Montana, the Dakotas,
Minnesota and the Cities of St. Paul,
Minneapolis, Duluth and Superior
Now Open to Washington
Fruit Under

FAVORABLE TRANSPORTATION ARRANGEMENTS.

INFORMATION FOR INTENDING SETTLERS WHO
WISH TO GO INTO FRUIT RAISING

UNDER THE MOST ADVAN-
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The early settlers in Washington soon learned that it was a good fruit-growing country. There are orchards in the valleys of the Puget Sound basin, on the islands in the lower Sound, along the Columbia river, and also in the Walla Walla Valley, which are more than twenty years old. The pioneer Washingtonians, however, had no market for fruit, and only raised it for their own consumption; consequently they did not study the scientific sides of fruit culture, and were very apt to neglect their orchards and allow them to take care of themselves. The large size attained by all fruit, berries, and the enormous yield, attracted a good deal of attention, however, and a number of men of sagacity and foresight predicted at a very early day in the development of the country that fruit would become one of the great staple products of the state.

Washington has two quite distinct climates, the dividing line being the great mountain wall of the Cascade range. West of that range the winters are mild and rainy, with very little frost, a good deal of fog and not much cold weather, while the summers are long and cool. East of the mountains there is a much wider variation of temperature between winter and summer, and the climate somewhat resembles that of such states as Ohio, Indiana and Illinois. The winters are much shorter, however, and there

rolling plains, and which has a climate that is virtually sub-tropical in summer. This valley produces excellent peaches, and peach growing is pretty well established here as a profitable industry. The culture of prunes has been carried on most extensively on the banks of the Columbia river, near the town of Vancouver, and in Oregon in the valley of Willamette. Here the summer climate is quite cool, and in the winter there is a heavy rainfall.

Characteristics of Washington Fruit.

Washington apples grow to remarkably large size and the flesh is firm and well flavored. The trees are long lived and not much subject to diseases which produce imperfections in the fruit. In the moist and rainy climate of the Puget Sound basin and lower Columbia, moss will accumulate on the branches of the trees unless a little labor is expended in removing it. Few of the old settlers take any care whatever of their trees, and their moss-grown appearance is very apt to excite the condemnation of an Eastern fruit grower. No doubt the life of the tree is shortened by the moss, yet it is surprising how much fruit will be produced on one of these old, heavily draped veterans of the orchard. The large, shapely and handsomely colored apples, grown in this moist climate, are fine in flavor and command a good price, and if ten times as many were grown as are now produced the home markets would not be overstocked.

Peaches are grown in the Walla Walla country as well as along the bottoms on the Snake river. In both of these districts there are no early frosts to nip the blossoms and the fruit ripened in the long, sunny, rainless summer days, has an excellent flavor.



make it a great fruit-growing state. It now offers opportunities to thousands of new settlers to succeed on small fruit farms, in raising all the fruits and berries of the temperate zone. Of course it is not an orange or banana country, but it produces apples, pears, peaches, apricots, prunes, cherries, strawberries, raspberries, gooseberries, and currants in great perfection of size and flavor, and in great quantities as to yield. As an industry fruit growing is comparatively a new thing, for the reason that local markets in towns and cities have only grown up during the past few years, and the railroads, which now reach all the well-settled districts of the state, have only just begun to encourage the business by providing refrigerator cars, and offering low freight rates, and giving growers such information as enable them to pack the fruit so that it will stand transportation.

The Northern Pacific Railroad has been particularly active of late in stimulating this new and interesting industry. The management of this road can be depended upon to extend all pos-

is very little, if any, rainfall during the summer months. There are certain districts of the state which have exceptional climates, owing to their latitude, or the position of the mountain ranges, or to the existence of great canyon-like valleys. For example, the country known as the Spokane Plain, in the extreme eastern part of the state, has an elevation of about 2,000 feet, and is not adapted for peaches, although apples, pears, plums, cherries and all kinds of berries do well.

This is also true of the adjacent country on the southern boundary of this strip of country extending along the Snake river which is almost 2,000 feet lower than the general average

Washington Strawberry berries—Seventeen to the quart; Compared in size with a Silver Dollar and Half Dollar.

Five kinds of prunes are grown both in Eastern and Western Washington,—the French, Italian, German, Hungarian and silver. Oregon was first in the prune business, and nearly all the Washington prunes are marketed under the name of Oregon prunes. They are much plumper than the foreign prunes and have a fresher flavor. No attempt has yet been made to put up fancy grades in glass, as is done by French growers, but the drying is done with care and cleanliness and the fruit is growing in favor in the Eastern markets.

Pears do well in all parts of Washington, and all the favorite varieties produced in the Eastern States are successfully grown. Currants and berries give enormous yields and the size of the fruit is surprising.

An old settler in Pierce county raised one year 7,000 pounds of red raspberries on an acre of ground. Another settler, who raises fruit at Summer in the same county, sold one season from three acres of ground 1,387 crates of berries at \$.90 per crate. Strawberries reach a size and perfection rarely seen in the East. It is by no means uncommon to see berries so large that they must be cut in two with a spoon, because one makes too large a mouthful.

Markets for Fruit.

The State of Washington has three important growing cities, which still obtain much the larger part of their fruit from California. Spokane has now a population of 30,000; Tacoma, 50,000 and Seattle, 55,000. There are besides such large towns as Whatcom, Olympia, South Bend, Walla Walla, Colfax, Dayton, Ellensburg, North Yakima, Everett, Centralia, Chehalis, Vancouver, Pullman, Palouse and across the line in Idaho are Moscow and Lewiston and there are many other towns, which consume a large aggregate quantity of fruit. There is no reason why the home-grown fruit should not take the place of that sent from California, excepting, of course, such varieties as are only produced in warm climates. The Montana towns offer an excellent fruit market, now supplied for most part from Utah and California. Butte has a population of 40,000, Helena, 20,000, Missoula, 10,000, Great Falls, 8,000, and there are a number of important towns of lesser size, such as Bozeman, Billings, Miles City, Red Lodge, etc., in all of which Washington fruit can be marketed to advantage. East of Montana lies the great prairie country of North and South Dakota, which grows nothing in the way of fruit excepting berries. St. Paul and Minneapolis with their combined population of 400,000, and Duluth and Superior with a combined population of nearly 100,000, are not only great fruit markets for their own home demands but are centres of fruit distribution to a multitude of towns and villages. Further east is the great city of Chicago, which can be reached by the Washington fruit growers at no greater expense per crate or carload than must be incurred by the growers of California. It will be seen without further argument that the market for Washington fruit is a very large one, and that growers entering the business need have no fear of a lack of demand.



A Washington Peach Tree in Bearing.

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tion are well understood. The largest orchard is that of Doctor Blalock, which embraces 320 acres in peaches, plums and prunes. The town is full of fruit trees and most of the farmers who make wheat their principal crop have orchards around their dwellings. Apples thrive best on the slopes of the hills. The trees are thrifty and long-lived. Peaches are as reliable a crop as in Western Michigan. Grapes do well. The raising of berries for the markets of Spokane, Tacoma and Seattle is a profitable industry. As a rule, irrigation is not found necessary in this region, but some of the growers, who have tracts so situated that water can be brought upon them at small expense, find it advantageous to run little ditches along the rows of their young trees.

Land can be bought for from \$10 to \$40 per acre, depending upon its proximity to the town. Such land will be cleared and in condition for the immediate planting of trees. The Walla Walla country has a long, warm summer, extending from the first of May to the first of October. Showers fall in June, but from the end of that month to the early part of October no rain is looked for. The winters are never severe enough to injure fruit trees. A good deal of plowing is done in February, and by the middle of March, as a rule, the spring has come to stay.

IN THE SNAKE RIVER VALLEY.—In the valley of the Snake river, and also that of the Clearwater—its principal affluent—peach orchards are thrifty and very productive, and the yield is never interfered with by frost. The amount of land available for orchards is quite limited, however, and consists only of small strips of bottom here and there, hemmed in by the basaltic walls of the numerous cliffs. Local markets have thus far absorbed the whole of the peach crop. Some of the growers ship to Spokane in small boxes, holding about twenty-five pounds; others sell their fruit to peddlers, who load up wagons and dispose of it in the many towns and villages through the adjacent country. The nearest railway shipping points are from twelve to twenty miles distant. There are still opportunities for planting new orchards, and as a thoroughly reliable peach region this district can be strongly recommended.

THE POTLATCH COUNTRY IN NORTHERN IDAHO.—Northeast of the peach district above described, and north of the Clearwater river, is an elevated prairie, deeply furrowed by very narrow, canyon-like valleys. This is known as the Potlatch country, from the name of its principal stream, the Potlatch river. The westernmost spurs, ranges and foothills of the Rocky mountain system inclose this region on the north and east, protecting it from chilly winds and early frosts. For this reason the Potlatch country is a remarkably good fruit country for the raising of apples, pears and plums. The yield is very large, and the fruit is handsome and finely flavored. Land in the Potlatch country can be purchased of old settlers at from \$20 to \$30 per acre. It is rich brown prairie soil, and no clearing is required. New settlers who are willing to go into the edge of the timber and clear land, will find a ready sale for their logs at the sawmills, and when once the land is cleared of timber it is just as good for fruit as the adjacent prairie land. The timber is of light growth, and consists in most part of Rocky Mountain pine, with here and there small tracts of white pine. It is a remarkable fact that these pine lands are not sandy and barren, like some of the Eastern pine lands, but yield excellent crops of grain when put under cultivation.



Four bunches of cherries from the Sound of the "Black Republican" and "Royal Ann" varieties.

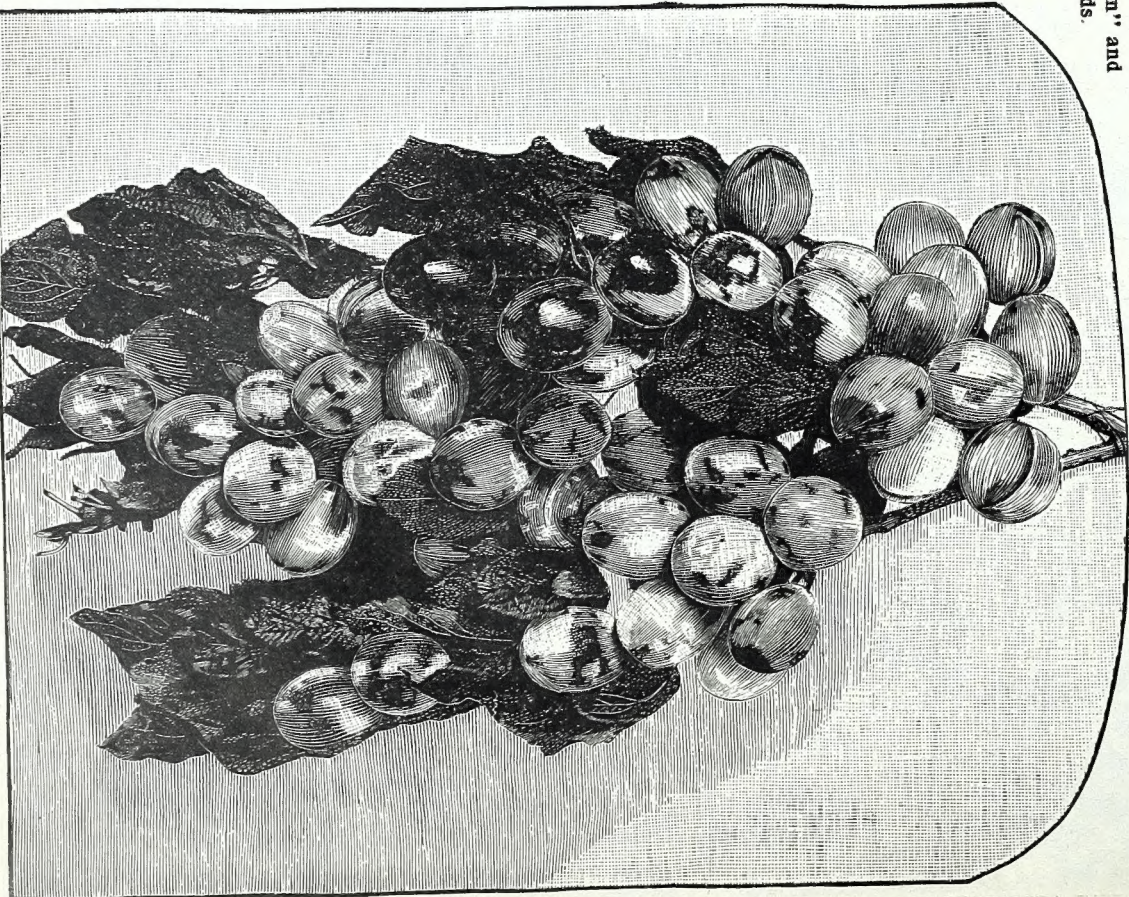
The Bartlett pear is raised to perfection, and other varieties do well. Peach, egg and Italian prunes are found in large returns. The French prune is also raised.

North of Spokane in the Columbia are a number of very thrifty orchards. He succeeded with peaches and advantages of growing apples. Orchards that were planted posts on the Columbia mountain in good bearing condition.

THE YAKIMA VALLEY.—The Yakima is a large river which heads in the eternal snows of the Cascade mountains and flows in a southern direction to the Columbia. Its first considerable known as the Kittitas basin, 3,500 inhabitants, as a matter of fact. The stream descends rapidly and fifty miles before it emerges from a series of beautiful valleys where irrigation is practiced to a considerable extent and where summer days and nights adapted for fruit growing. This region is known as the number of important canals, attracting a great deal of population of 3,000. It is North Yakima is the chief streams of water which run roadway and sidewalk beautiful with fruits and flowers. All the adjacent country is irrigated.

and the expense of clearing is correspondingly less. The soil rather light but is on this account better for fruit raising than the rich bottom lands along the rivers of the main land.

THE PUGET SOUND VALLEYS.—Along the valleys of the river flowing into the Puget Sound, orchards of apple, peach, plum and cherry trees are to be found; although no special effort has been made to develop fruit growing as a regular industry. The farmers as a rule plant orchards around their homes, just as the farmers do in the older states in the East. In the Puyallup Valley, near Tacoma, and in the valleys of the Black, Cedar and Stuck rivers, near Seattle, are a number of farms where raspberries, strawberries, currants and gooseberries are raised for the neighboring city markets, with great success both as to quantity and quality of the fruit and financial results. A number of good apple orchards can be seen in the valley of the Snohomish river and also in the valley of the Nooksack river, near the city of Whatcom. Experiments in clearing the fir uplands adjacent to the Puget Sound valleys and in planting them in prunes have been made in a few localities, and have been uniformly successful. The cost of clearing such lands is, however, quite heavy, and cannot be brought much under \$100 per acre.



A Branch of Plums from a Farm near Juliaetta, Idaho.

FRUIT RAISING IN WASHINGTON.



Cluster of Red Cheek Pippin Apples from the Yakima Valley.

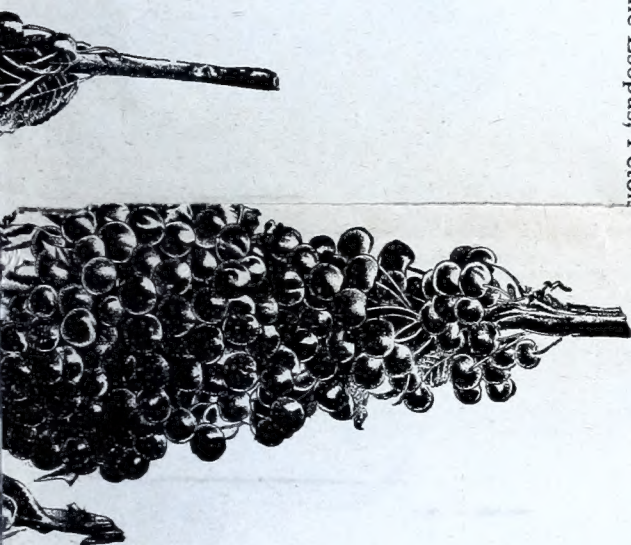
Fruit Growing Districts.

THE WALLA WALLA COUNTRY, lying between the Snake and Columbia rivers on the north and the Blue mountains on the south, is one of the best districts for general fruit culture in the State of Washington. Its business centre is the town of Walla Walla, which has a population of 7,000, and is well supplied with railway facilities by the Union Pacific and by a local system of roads called the Oregon & Washington, which works in harmony with the Northern Pacific. New settlers who locate in this region will have the advantage of the experience of the old resi-

Free homesteads can still be secured in the timber belts at the head of the Potlatch and too far from railway stations. Good examples of what has been done in the orchard culture can be seen in the vicinity of town of Moscow in Northern Idaho, which is a place of 6,000 people.

THE COUNTRY AROUND SPOKANE.—South of Spokane, in what is known as the Palouse country, some attention has been given here and there to fruit culture, with good results, so far as apples, pears and berries are concerned. The region has too great an elevation above the sea level for peaches to be a reliable crop. Similar conditions of climate and elevation prevail in the Big Bend country west of Spokane. Both of these regions can be depended upon as equal to Central Michigan for berries, to Central Indiana or Northern Ohio for apples. They are well furnished with railroad facilities and the growing city of Spokane gives a ready market for fruit; there is also a large demand in the Coeur d'Alene mining towns lying about one hundred miles east of Spokane.

Prune culture has not been carried on to any considerable extent in this region, but the experience of the few who have engaged in it is encouraging. One farmer reports that he has 1,200 prune trees from which he sold 4,000 boxes, averaging 55 cents per box and 500 boxes of fruit left for pruning from an orchard of 1,000 per acre. Another reports that the only drawback to fruit raising in this region is an occasional summer frost which hurts the fruit on low land, but never affects the uplands. None of the insect pests exist which abound in other parts of the country. Another settler who has an orchard near Cheney in Spokane county, has 1,500 fruit trees, half of which are bearing, and estimates that his orchard at the age of ten years will yield an annual income of \$500 per acre. The varieties which have been fully tested in this region are the Spitzenberg, Yellow Bellflower, the Red Astor, the Newton Pippin, the Gravenstein, the Esopus, Petofsky,



The cities of Tacoma and Seattle are distant only eight hours by rail and their markets are therefore accessible at very moderate transportation charges to the growers of fruit. All of the Yakima Valley from the town of Yakima down to the mouth of the river, a distance of about 100 miles, is a superior fruit country. In its natural condition it was a sage-brush desert. The soil is of surprising depth and richness and when water is brought upon it its productive power is enormous. Four or five crops of alfalfa are raised from the same ground every season. Hops give enormous yields, and the hop louse, which is such a pest in most of the old hop-growing regions in the United States and Europe, has never troubled the growers. The insect is found on the vines, but is killed by the hot weather before it can do any damage. This region can be strongly recommended to settlers who wish to engage in fruit growing. Land under ditch with water rights cost as high as \$55 per acre, but twenty acres are enough for a fruit farm, allowing sufficient area for forage crops for cows and horses. Even on ten acres a family can live very well when once their peach, prune and apple trees are in bearing. A fruit grower who has been established for several years in this region reports that in 1892 he sold from 1,800 trees over 3,000 boxes of fruit, which gave him a net profit over all expenses of picking, boxing and shipping of \$1,500. This settler came into the Yakima Valley in 1882 with only \$150 in capital and he now has a place which he would not sell for less than \$25,000 spot cash. He irrigates his orchard three or four times a year, cultivating the ground thoroughly to kill down the weeds. A noticeable thing about the orchards in this region is their very handsome, clean and regular growth. Almost any tree out of a large orchard might be selected for an illustration in a nurseryman's catalogue—so perfect is its form and so heavy is its load of fruit.

The expense of grubbing sage-brush land and preparing it for an irrigated orchard, including the digging of the small lateral ditches which carry the water supply, can be estimated at about \$20 per acre; the cost of trees and of planting with peaches, prunes and apples is estimated at about \$12 for the young trees and \$8 or \$10 for the labor. Land under ditch with a perpetual water right costs from \$40 to \$60 an acre, and there is an annual charge of from \$1 to \$2 an acre for the water, to meet the expense of keeping up the main line canals. A settler can therefore estimate that ten acres of orchard, planted with young trees, supplied with water and irrigating ditches, will cost him not far from \$1,000. If he has ten acres more for alfalfa and other crops he will have all the land he can possibly manage, and can depend, as soon as his trees have three years' growth, upon a gross income of from \$2,000 to \$3,000 a year.

THE ISLANDS IN PUGET SOUND.—The islands lying in Puget Sound constitute a large archipelago. They are of varying sizes, from the largest, Whidby Island, which is about 40 miles long, to mere islets comprising only a few acres. Fruit growing on these islands has proved quite successful. Some of the settlers have orchards 10 to 15 years old, and their chief source of revenue is from the sale of fruit. Whidby Island, Orcas Island and San Juan Island are the principal fruit-growing localities. Apples and pears are raised for the markets of the Sound cities and a good deal is done in raising prunes for drying and berries and strawberries.

Hull, a good purple, and is of fine flavor. The tree is free from pests, strong and vigorous, is a regular bearer, carrying its fruit well distributed, and requires no thinning, as it has the peculiarity of shedding all the fruit that it cannot perfect to a good large size. The tree responds to good treatment, but does tolerably well in a grass plot and under neglect. This prune brings, in the Eastern markets, two cents per pound more than any other prune grown on the Pacific coast. It is generally known in the East as the Oregon prune, from the fact that most of the shipments go from Portland, and also because many of the largest orchards are in Oregon. It grows, however, just as well in Washington as in the neighboring states, and can be successfully cultivated all along the north shore of the Columbia river, and also along the Cowlitz, Willapa and Chehalis rivers. The irrigated lands of the Yakima Valley are just as well adapted for prune raising as the cleared forest lands in the moist climate of the lower Columbia.

Shipments of California Fruit.

It is only fifteen years since California commenced shipping fruit in carloads to points east of the Rocky mountains. The business was a new one and the shippers and railroads had much to learn from experience as to how the fruit could best be handled and marketed to all concerned.

Some statistics taken from official sources will be of interest as showing the immense volume of business done by California in this industry alone. The following shows the shipments of fruit and canned goods from California to the East by rail, in pounds:

DESCRIPTION.	1889.	1890.	1891.
Canned goods.....	34,268,500	89,121,350	46,334,080
Dried fruit.....	32,819,320	43,377,910	58,007,240
Green fruit.....	62,855,290	86,528,440	109,360,710
Raisins.....	17,022,060	27,370,330	39,657,710
Totals.....	146,965,170	237,398,030	259,359,740

This shows on the gross weight in 1891 practically 12,500 carloads, or of green fruit, 5,468 carloads.

In 1892 the shipments of green fruits from California aggregated over 100,000,000 pounds, equal to more than 4,000 carloads; of which 50 per cent was shipped from Solano and Sacramento counties; 35 per cent from Santa Clara, Yulo and Alameda counties; or about seven-eighths of the whole amount from points within a radius of ninety miles from Sacramento. Of this great fruit movement over 1,000 cars were consigned to dealers in Chicago; over 1,000 cars to points on the Missouri river and on the Mississippi, and over 300 cars to St. Paul and Minneapolis. The total value of the California fruit product for 1892 was estimated at over \$50,000,000, and the output was 70 per cent more than that of 1889. There was consumed in the territory reached by the Northern Pacific Railroad alone, during the year 1891, of green, canned or dried fruits over 100,000,000 pounds, and a large proportion of this was carried through the State of Washington on its way to its points of destination. In other words, 3,500 carloads of fruit were hauled past districts of Washington which could have produced the same fruit and of better quality.

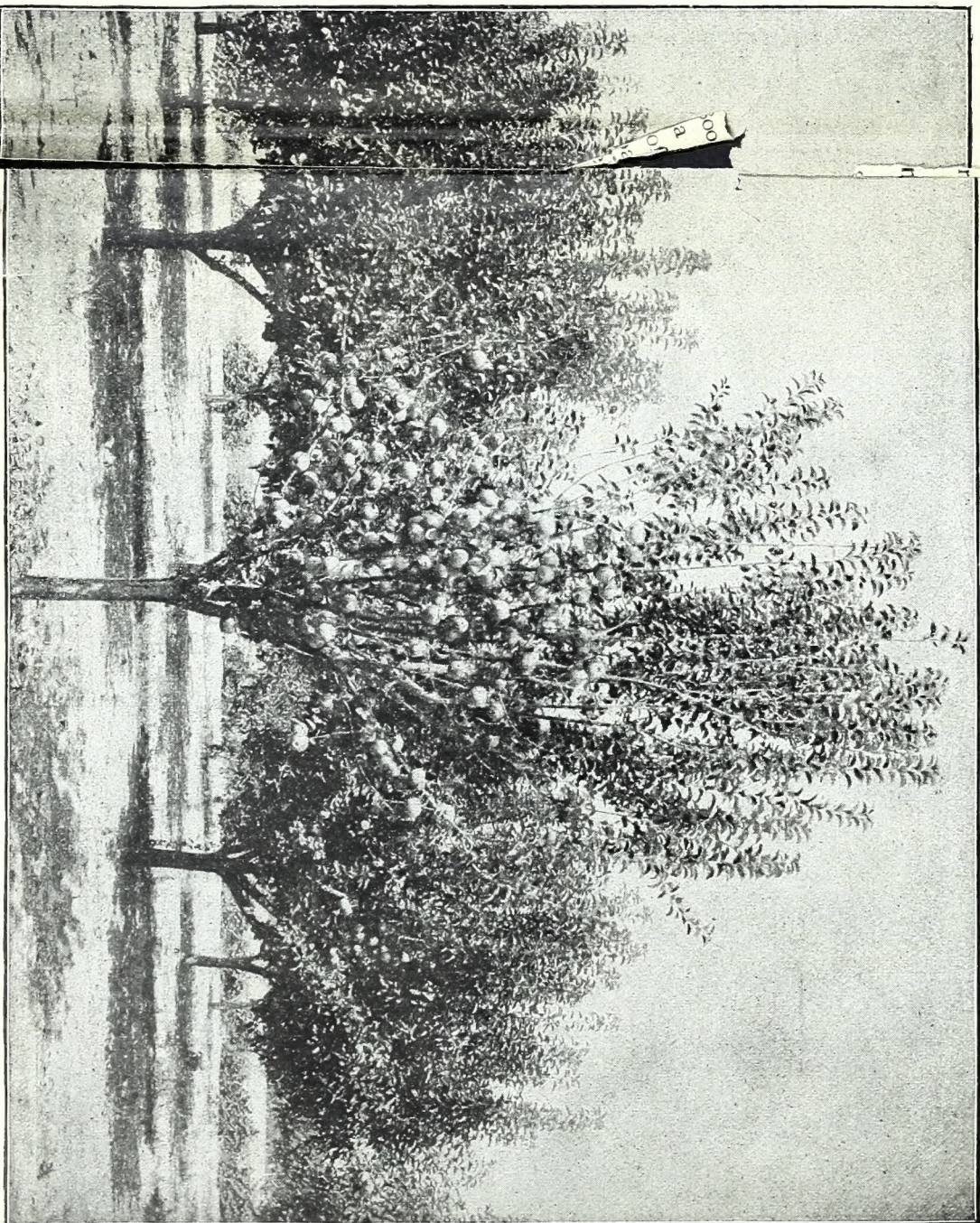


Prunes and Plums Grown on Fidalgo Island.

can be picked before they are fully matured, and they will color up and be juicy, but not so nicely flavored as if fully matured. One can determine when it is safe to pick by raising up the pear; if the stem breaks, then they will rot in the place of coloring up. These characteristics of the Bartlett, which is the only pear used by the canners, make it a very desirable variety.

I take it for granted that the orchardists of to-day, through the organized societies, have found the best kinds to plant, and have done so, and now have their fruit ready to gather, assort, pack and market.

The object of this paper is to treat on those subjects. No matter what variety of fruit is marketed, great care should be taken. The time devoted to picking, assorting and packing will bring in a larger return than any other devoted to the crop. Fruit should be picked at just the right time; it should not be picked before it is fully matured, nor suffered to hang on the tree until over-ripe. Some kinds are better to eat when fully ripened on the tree, others should lay several days after gathering before eating. The cherry, peach, plum, nectarine, and in fact most all stone fruit should be ripe before picking, to have their full flavor. Some kinds of pears, and especially the Bartlett, are better by laying awhile after being taken from the tree; if a Bartlett pear hangs on the tree until fully ripe, it is coarse and grainy, and not so juicy and finely flavored as when it lays several days after picking. As soon as they have obtained their full size and show mothy spots they should be picked, if they are shipped a distance they should be wrapped in fruit paper; and they can be depended on to keep from eight to twelve days, and come out in about the proper condition for eating. If intended for local market, wrapping may be dispensed with, but they should be shipped at once, and let your commission merchant put them on the market as they commence to color up. If it is an object to get some in the market early, they will color up and be juicy, but not so nicely flavored as if fully matured. One can determine when it is safe to pick by raising up the pear; if the stem and fruit-bud part freely, they will be the only pear used by the canners, make it a very desirable variety.



An Irrigated Apple Orchard in the Yakima Valley.

Advantages of Washington Over California for Fruit Growing.

There is no question as to the superiority of several varieties of fruit grown in Washington over similar varieties grown in California. Pears, plums, prunes, peaches, apricots, apples and cherries have a finer flavor. The natural law appears to be that the further north these fruits can be grown, the better the flavor. California is too hot a country to produce the best results in fruit growing, except in varieties that are tropical or semi-tropical in their natural habitat. If the same care is taken in assorting and packing, so as to make the product attractive, Washington fruit can easily supplant the California fruit in the northern tier of states lying between the Mississippi Valley and the Pacific Coast. It is not likely that Washington apples will ever be profitable shipped as far east as Minnesota or Wisconsin, where they would have to compete with apples raised in Iowa, Missouri and Michigan, still there should be a large market for them west of the Minnesota line at points on the Northern Pacific and other roads in North and South Dakota, Montana, Idaho and the Canadian provinces. Washington peaches, pears, plums, prunes, apricots and cherries can be placed in the markets as far east as Chicago in competition with California fruits and will soon make their way on their own merits, if the growers adopt the methods of packing, assorting and shipping which the California growers have learned by experience to be best. Geographically speaking, Washington would have a great advantage over California. In round numbers, the following figures represent the advantage in distance which Washington fruit has over California fruit, in reaching the points named: Helena and Butte, Montana, 600 miles; Fargo, N. D., 1080; St. Paul and Minneapolis, Minn., 580; Chicago, 300; Winnipeg, Manitoba, 1,200. The present approximate population of the territory open to the Washington fruit grower in which to market his fruit is as follows: Washington, 450,000; Idaho, 115,000; Montana, 190,000; North Dakota, 250,000; South Dakota, 450,000; Manitoba, 1,500,000; Minnesota, 1,500,000; Iowa, 2,105,000; Wisconsin, 1,800,000; Northern Illinois, 2,000,000; Chicago, 2,000,000; total 9,110,000. From these figures an idea can be obtained of the immense quantity of green, canned, preserved and dried fruit necessary to supply the wants of the people in these states. If we allow only five pounds yearly to each person, and this is probably much less than half of the actual amount consumed, we have a total of about 45,550,000 pounds or over 2,000 carloads.

It should not be forgotten that now that the markets of the Middle and Eastern States are open for shipments from California that the same markets are open for shipments from points in Washington.

Packing and Marketing Fruits.

The following article from the *Northwestern Horticulturist*, on packing and marketing fruits, will be of interest to those already engaged in the business and to others who may contemplate going into it:

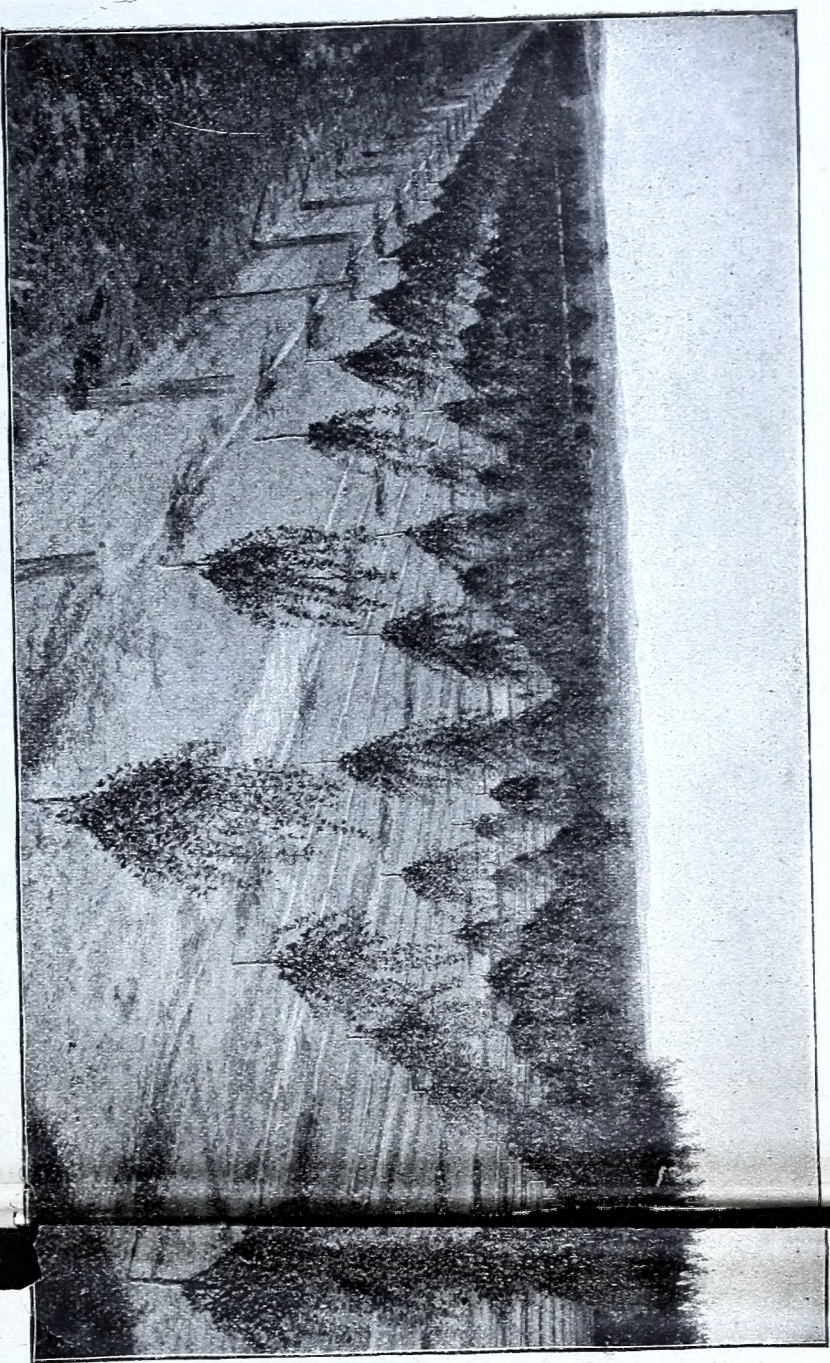
Few industries have undergone greater change than that of horticulture in the past quarter of a century. The improvement in the kinds and varieties of fruits, manner of planting, cultivating, gathering, packing and marketing, has been very great in the past few years.

As the population centered in cities, and the demand for fruit increased, not only for fresh, but canned and dried also, the farmer saw there was more profit in an orchard than in wheat and corn.

What to plant, the variety, etc., puzzled him. Horticultural papers were scarce and those who wrote for them, as a rule, were "theorists," having had little or no practical experience. Organized societies, where neighbors met and exchanged views, were not common, and such a body as a state organization was unknown.

I take it for granted that the orchardists of to-day, through the

An Irrigated Prune Orchard in the Yakima Valley.



THE VALLEYS OF THE COWLITZ, CHEHALIS AND WILLAPA RIVERS.—The Cowlitz river flows into the Columbia, while the Chehalis and Willapa flow directly to the tide water of the Pacific. These streams and their smaller affluents form narrow valleys, where the climate and soil are favorable to the raising of all kinds of fruits common to the temperate zone, with the exception of peaches. The best fruits for marketing are apples and prunes. On the upper Chehalis and the upper Cowlitz there are a number of prune orchards, which have been in bearing long enough to fully demonstrate their success.

ALONG THE COLUMBIA RIVER.—Along the north bank of the Columbia river, and particularly in the neighborhood of the town of Vancouver, prune raising is a well-established and flourishing industry. The Italian and French prunes are grown for drying, and the German, Hungarian and silver prunes for marketing in a green state. The land selected for prune orchards lies on the first hills adjacent to the river. It has a clayey soil, somewhat mixed with a gravel, and in its natural state is covered with a pretty heavy growth of fir, cedar and spruce. Land from which the heavy timber has been cut for the sawmills can be bought at from \$5 to \$10 an acre, and the orchardist must expect to spend from \$100 to \$150 per acre on the land by the time he has got it in condition to put out his trees. He can buy the trees at about ten cents apiece, and it is customary to set out 108 trees to an acre. The best prune for drying is



May Duke, Governor Wood, Koyal Ann, Black Tatarian, Elton, times called Black Republican).

Third—Apples: Red Astrachan, Early Pennock, Gravenstein, Waxen, Yellow Bellflower, Jonathan, Smith's Cider, Golden Ball, Rhode Island Greening, Maiden's Blush, Rambo, Winesap, Yellow Newtown Pippin, Monmouth Pippin (Red Cheeked Pippin), Esopus, Spitzenberg, Northern Spy, Roxbury and English Russets.

Fourth—Pears: Dearborn Seedling, Bartlett, Angouleme (Duchess d'Angouleme), Bonne d'Jersey, Beurre Claireau, Seckle, Beurre d'Anjou, Beurre Hardy, Flemish Beauty, Winter Neils, P. Barry and Beurre Easter.

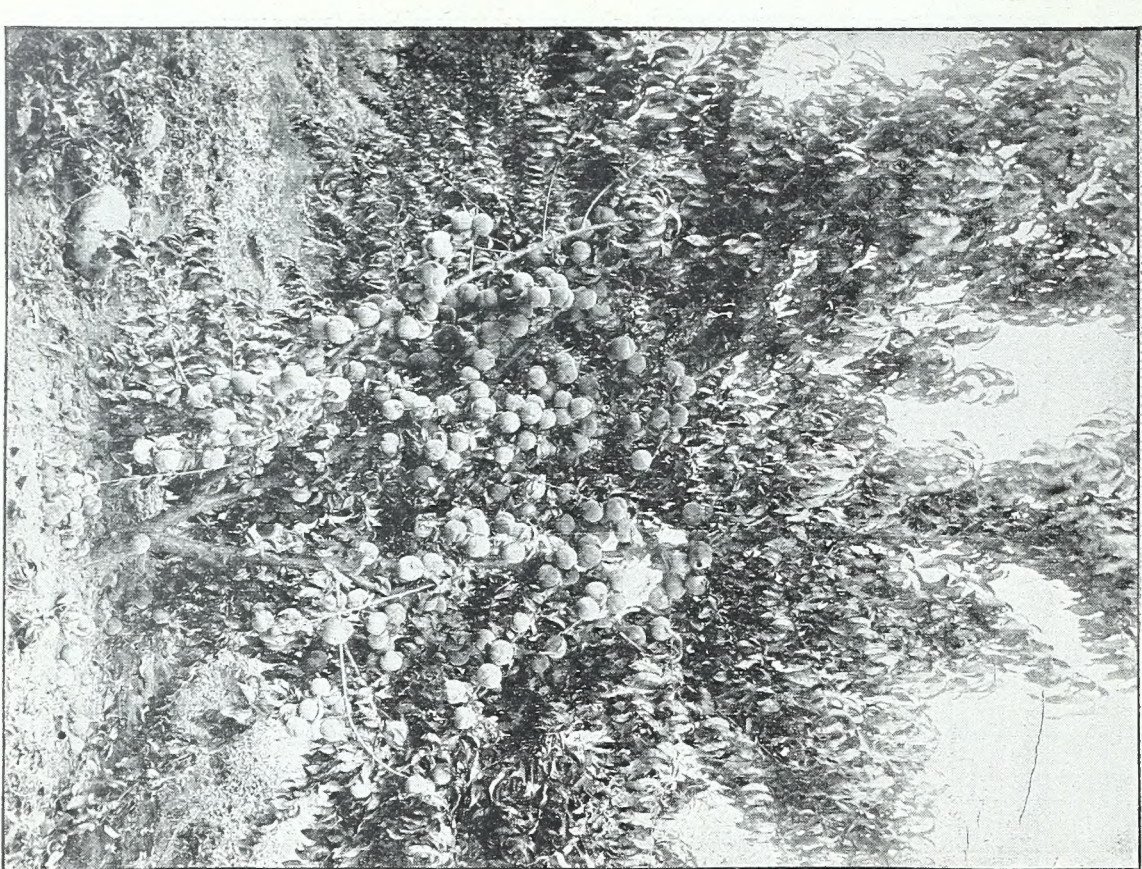
Fifth—Plums: Imperial Gage, Columbia, Bradshaw, Washington Yellow Egg, Coe's Golden Drop, Peach, Cherry (blue), Free Stone, Damson, Kelsey's Japan and Pond's Seedling (Hungarian).

Sixth—Prunes: Italian, Silver, Golden and German.

Seventh—Crab apple: Siberian and Hyslop.

Eighth—Quince: Orange.

The Bartlett is the only pear that is used in canning. Of plums preferred are, Yellow Eggs, Coe's Golden Drop, Washington and Early Golden Drop. In cherries, the white are preferred, Elton,



A Peach Tree near Lewiston, Idaho.

A peach grower on the Snake river says that the first peaches were planted in that neighborhood fourteen or fifteen years ago; that the trees are still alive and bearing; there has been but two total failures of the crop and the season about half a crop. Trees will usually commence to bear the second year, and will commence paying after three or four years. The best yield reported was 19 boxes of 18 pounds, 132 pounds, from a four-year-old tree of the Indian Cling variety and 25 boxes, or 450 pounds, from a late Crawford ten years old. Peaches on the Snake river begin to ripen about the fourth of July and the late varieties are ready for market about the middle of October; thus there are three and one-half months of the peach season, during which time the grower who has the usual varieties of trees is kept constantly busy packing and shipping his crop.

Cherries flourish best in the country west of the Cascade mountains; in fact the cherries of Western Washington are beyond all doubts the finest grown anywhere in the United States. The favorite varieties are the Heart cherries, the Bigareau, Duke and Morello. The humid temperate climate of Puget Sound seems to exactly meet the wants of the cherry. This fruit can be shipped east as far as Chicago, and always commands a good price and ready sale. There are ample opportunities for planting new orchards, and there is no probability of the market ever being overstocked.

Profit in Fruit Growing.

A Vancouver fruit grower states that his net income from 500 Italian prune trees is \$1,800 a year, after deducting all expense, including freight and commissions. Another grower states that his prune trees bring him an average of \$5 each per year. A Cowlitz county grower gives his receipts from 800 trees in one year as \$2,800. A resident of Centralia, which bore 40 bushels of fruit last year and have borne a full crop for five years.

In Whatcom county, the extreme northern corner of the state, says he has noticed a twelve inches long. Numerous yields of blackberries and raspberries are grown in the valleys near Tacoma and Seattle, and the fruit in a ready sale at from \$2 to \$2.50 per crate. A Pierce county grower reports that the lowest price he received for a bushel of fruit last year was \$1 per box of fifty pounds, and the highest, \$1.25 per box; for plums, from 4 1/2 to 5 cents per pound, these prices being net cash.

A fruit grower in Walla Walla, in Eastern Washington, who has been engaged in the business for ten years, says that the most profitable fruit in his experience are: Apples—Yellow, Newtown Pippin, Prunes—Italian and Silver; Cherries—Royal Ann and Black Republican; Pears—the Bartlett and Winter Nelis; Peaches—Crawford, early and late, and Malta; Quinces—the Hamberg and Quince; Plums—the Peach P. m. Of berries—the Jesse and Clark Seedling Strawberries—the Gregg and Black-cap Raspberries and the Late Blackberries.

A good authority on prune culture states that a well-cultivated prune orchard will yield annually \$250 per acre, "The Northwest Magazine" Press, St. Paul, Minn.

Fifth District—D. M. Jessup, Walla Walla, Shoshone, D. H. Spaulding, Almota, Shoshone, D. H. Spaulding, Almota, Shoshone, D. H. Spaulding, Almota.

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Fourth District—Yakima, Kittitas, Douglas and Okanogan.

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Sixth District—Whitman, Adams, Lincoln, Spokane and Stevens.

Information Concerning Lands.

The board invites correspondence from intending settlers in relation to fruit raising in Washington.

For information concerning lands adapted for fruit raising, the reader is advised to address Paul Schulze, General Agent Northern Pacific Railroad, Tacoma, Washington.

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ST. PAUL.

The Gravenstein apple should be treated very much as the Bartlett pears. It is not particularly attractive when first picked; after laying awhile it becomes very attractive in appearance, and has a very fine aroma.

A heavy per cent is often lost to the grower in selling his own fruit, or intrusting the sale of the same to parties who are not familiar with the business.

I have sold the Gravenstein apple in Chicago from California at \$1.50 per box—at the same time the apples coming in from Michigan in barrels were selling at \$1.50 per barrel, and it would take four boxes to make a barrel.

Tender fruits, such as berries, cherries, peaches, in fact all stone fruits designed for shipping, should never be picked in the heat of the day. This country, where the dawn of day is long before the sun is up to heat the fruit, is well adapted to shipping tender fruits.

After the fruit reaches the packing-house for an improvised shed, if it is far to the packing-house, as they should be in the shade soon after picked, it should be carefully assorted. All the No. 1 packed by itself, and the No. 2 should be packed to itself, and all that is over-ripe, bruised or from any cause defective, should be utilized at home; or, if it is shipped, packed separately and marked culls. If the distance to ship is not great, I would pack apples on the side. Take the cover off the box and lay the apples in rows, with the highest colored side down, packing the box all the way through. If four layers will fill the box, they are considered good-sized apples; if they do not fill the box full, and another row makes the box too full, put a smaller apple between the last layer, what is called breaking joints, or put another layer, then put a cleat on the end of the box and raise it so the cover can be nailed down, fitting snugly on the apples to prevent their moving in handling, then turn the box over and mark, so when they are opened the side which is down when packed will be the top. If it requires five layers to fill the box, proceed the same way. Some varieties it will take six tiers or layers to fill the box, and still they will rank as No. 1 of their kind. If the apples are to be shipped a distance or designed to be kept long in the box, pack them on the end, putting the stem end down, so when the box is opened the stem end will be up. The variety and number of tiers should always be marked on the box, so the seller will not have to open the box to find that out. The least opening that has to be done the better. No one who has not had experience in selling fruit has any idea of the effect of having to open the box. If a buyer sees the box has been opened, his first thought is, someone has looked at that box and rejected it, and, of course, he does not want what someone else has rejected. Buyers soon learn the brand and the manner of packing. If the fruit is assorted and packed honestly, it is sought after, and soon there is little occasion to open the boxes. The same care in handling, assorting and packing should be taken in all kinds of fruit. Invariably use clean, new, bright boxes, and use new, clean paper, of uniform color for wrapping. Do not send fruit to market in a dirty or inferior box, or wrapped in a variety of papers. Always brand boxes with shipper's name and address; then, if the fruit merits it, the buyer will call for it again.

Varieties of Fruit Adapted to Washington.

A Western Washington fruit grower of large experience furnishes the following list of varieties of fruit adapted to the climate of the country west of the Cascade mountains:

First—Berries of all kinds: Strawberries, red and black-cap raspberries, blackberries, currants and gooseberries.



Orchard Scene in Eastern Washington.

Governor Wood, Royal Ann, Kentish and Duke's for pie fruit. Of berries, red raspberry, currants, blackberries, strawberries and gooseberries.

For shipping in quantities, of apples, the Yellow Newtown Pippin, Virginia Greening, Monmouth Pippin, American Pippin and Russels. Pears, Bartlett, Beurre Hardy, Beurre d'Anjou, Beurre Clairgeau, Winter elis, Lincoln, P. Barry and Pound pears.

Plums, Bradshaw, Columbia, Peach, Coe's Golden Drop, Kelsey and Pond's Seedling (Hungarian), Prunes, Italian, Silver and Golden. Cherries, Eck Tartarian, Black Bigareau and Royal Ann.

Peach growers in Eastern Washington report that the following varieties are to be recommended: Hale's Early, Foster, Early Crawford, Stump the World, Late Crawford, Indian, Coxe's

Washington State Board of Horticulture.

Officers of the Board: Henry Bucey, President, Tacoma; D. M. Jessee, Inspector of Fruit Pests, Walla Walla; Henry H. Spalding, Treasurer, Almoda; C. A. Tonneson, Secretary, Tacoma.

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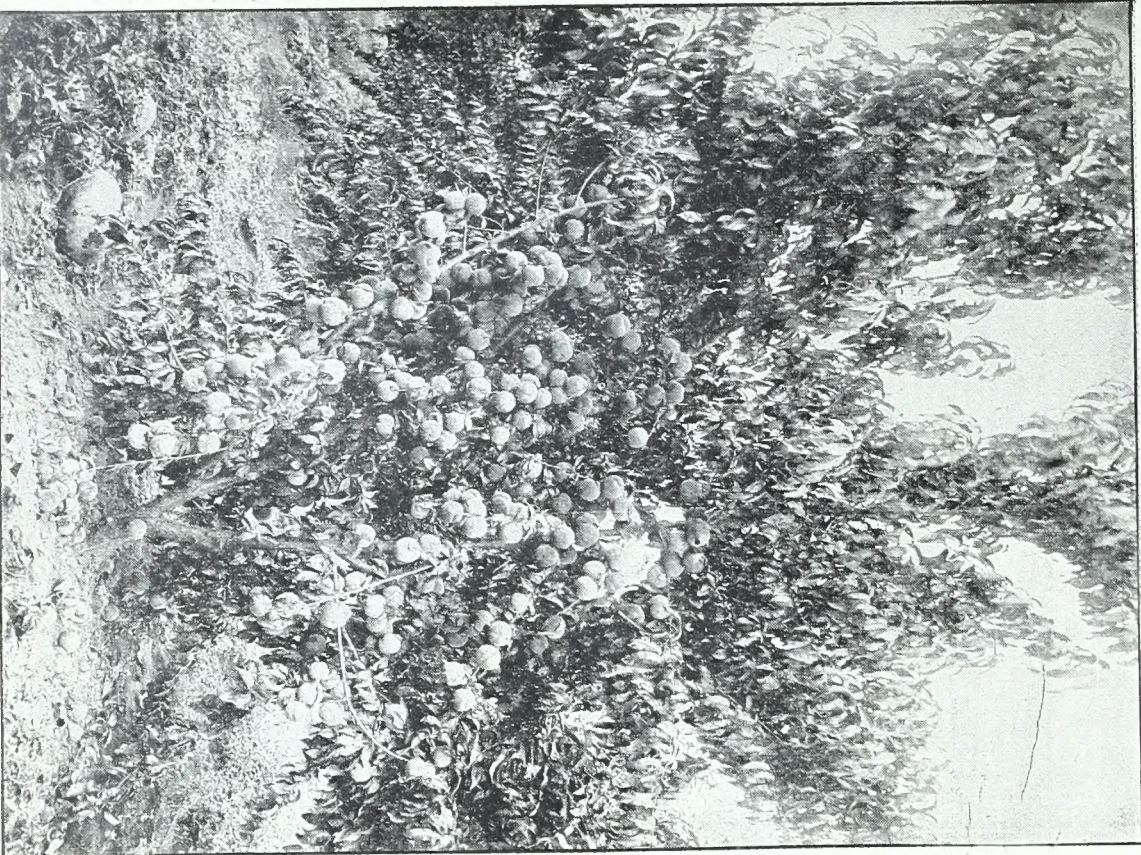
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"THE NORTHWEST MAGAZINE" Press, St. Paul, Minn.

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Maps and printed information concerning Washington and Northern Idaho will be furnished free to all applicants who address P. B. Groat, General Emigration Agent, Northern Pacific Railroad, St. Paul, Minn.

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